

Amendments to the Specification

Please amend the paragraph which was inserted by the Amendment filed in this matter on November 4, 2005, before the first line of page 1 and after the title, as follows:

**CROSS-REFERENCE TO RELATED APPLICATIONS**

This application claims the benefit of U.S. Provisional Application No. 60/368,952, filed March 29, 2002; U.S. Provisional Application No. 60/371,842, filed April 11, 2002; U.S. Provisional Application No. 60/388,859, filed June 17, 2002; and U.S. Provisional Application No. 60/391,638, filed June 27, 2002. This application is also a continuation-in-part of U.S. Patent Application No. 10/311,613, which has an assigned filing date of December 17, 2002, which was the National Stage of International Application No. PCT/US01/41074, filed June 20, 2001, [[and]] which claims the benefit of U.S. Provisional Application No. 60/212,499, filed June 20, 2000; U.S. Provisional Application No. 60/292,037, filed May 21, 2001; and U.S. Provisional Application No. 60/294,288, filed May 31, 2001, and which has since issued as U.S. Patent No. 7,027,966 on April 11, 2006.

Please amend the paragraph at page 3 of the specification, from line 5 to line 17, as follows:

The method of the present invention provides solutions for two existing problems in the field of railroad track transition curve geometry. One problem can arise when an existing route is being upgraded to allow operation at higher speed. If for a particular curve the speed increase is being provided for by increasing the superelevation (or banking) and ~~banking~~ and without change of the radius of or path followed by the curve, then the offset between the curve and a neighboring straight section will be unchanged and the length of a standard spiral connecting them will be unchanged. The offset is the shortest distance from a circular extension of the curve to a straight extension of the straight section. It is generally necessary in such a case to find some way to lengthen the spiral. Examples of ways that traditional spirals and circular arcs have been used to address this problem in the past can be found in the article titled "Optimation of transition length increase" by Henryk Baluch, published in the October 1982 issue of Rail International.

Please amend the paragraph at page 8 of the specification, from line 4 to line 13, as follows:

In a second aspect of the present invention, for forming roll functions to be used in the KS\_Method, basic roll functions of orders 1, 2, 3, 4, ... can be used either by themselves or in linear combinations, where the term "linear combination" means the sum of a set of contributions each of which has its own coefficient. A roll function that is a linear combination of basic roll functions with a common value of  $m$  is identified by an order symbol such as  $\{m; 0.0, 1.0, 0.5\}$  in which the comma separated values following the semicolon indicate the values of the  $j_n$  coefficients for the basic shapes of orders 1, 2, 3, 4, ... relative to the (normally unique)  $j_n$  that is = 1.0. A basic roll function should be considered to include its coefficient when the basic roll function is referred to without mention of its coefficient. Several examples of uses for linear combinations with more than one basic roll function have previously been described.